Vipel® F007-APT-35

Vinyl Ester

AOC, L.L.C.

Message:

Vipel Corrosion Resistant, Low VOC, Bisphenol A, Epoxy Vinyl Ester Resin
AOC's Vipel F007 is a low VOC, bisphenol A epoxy-based vinyl ester resin dissolved in styrene.
Versatile
The Vipel F007 Series is ideally suited for use in hand lay-up, spray-up, filament winding and pultrusion processes where outstanding mechanical properties and excellent resistance to chemicals and heat are required. Wide formulating capabilities allow for use in many processes and for optimization of cost/performance.
Corrosion resistance
Refer to AOC's "Corrosion Resistant Resin Guide under product F007" for corrosion resistance information. For questions regarding suitability of a resin to any particular chemical environment, contact AOC.
Food and Drug
All resins in this datasheet are manufactured from raw materials that are listed in FDA regulation Title 21 CFR 177.2420. It is the fabricator's responsibility to also be sure that the final composite is well cured. All composites used for FDA applications should be post cured at 180°F/82°C for at least 4 hours. After post curing, laminate should be washed with soap and water and rinsed.

General Information	
Features	Food Contact Acceptable Good Corrosion Resistance
Uses	Coating Applications Filaments
Agency Ratings	FDA 21 CFR 177.2420
Forms	Liquid
Processing Method	Filament Winding Hand Lay-up Pultrusion Spraying

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm³	
Styrene Content	35	%	
Exotherm			
Gel to Peak	10.0	min	
Peak	149	°C	
Gel Time (25°C) [1]	35.0	min	
Thixotropic Index [2]	2.00		
Hardness	**Nominal Value**	**Unit**	**Test Method**
Barcol Hardness	44		ASTM D2583
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3590	MPa	ASTM D638

Tensile Strength (Yield)	95.1	MPa	ASTM D638
Tensile Elongation (Break)	5.1	%	ASTM D638
Flexural Modulus	3860	MPa	ASTM D790
Flexural Strength	163	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	130	°C	ASTM D648
Thermoset	Nominal Value	Unit	
Thermoset Mix Viscosity [3] (25°C)	500	cP	
Post Cure Time (82°C)	4.0	hr	
NOTE			
1.	Gel time with 1.25% MEKP		
2.	6/60 Thix Index		
3.	Brookfield LV viscosity spindle 3 at 60 rpm		

Recommended distributors for this material

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